

**REMARKS**

This Amendment After Final is filed in response to the Final Office Action mailed Oct. 29, 2007. The Applicant respectfully requests reconsideration of the rejections presented therein.

Claims 1-28 are pending in the case.

No claims have been amended.

No new claims have been added.

***Response to Examiner's Response to Arguments***

At paragraph 12 of the Final Office Action, the Examiner states:

... the Applicant submits that Ishwar does not teach 'the virtual port supporting a plurality of connections.' In reply, the examiner respectfully disagrees. In figure 5 of Ishwar, the port P3 of the reference numeral 502 clearly shows 3 different VLAN tunnels going to 3 different devices... (also see paragraphs 40-41).

The Applicant respectfully requests the Examiner reconsider. The Applicant claims a "virtual port supporting a plurality of connections."

Ishwar's port P<sub>3</sub> is **not** a virtual port. Rather, port P<sub>3</sub> is an ordinary physical port. Ishwar repeatedly refers to "physical port P<sub>3</sub>." See Ishwar paragraphs 36 and 37. Indeed, paragraph 41, which is cited in the Office Action, twice refers to port P<sub>3</sub> to as "physical port P<sub>3</sub>." Thus, at most, discussion of port P<sub>3</sub> suggests multiple tunnels emanating from a **physical port**.

Ishwar elsewhere discusses logical ports. When Ishwar refers to a logical port, the prefix "LP" is used. For example, at paragraph 37, Ishwar discusses a logical port LP<sub>3,600</sub> and describes that "the logical port is identified by the notation 'LP<sub>3,600</sub>'." Unlike Ishwar's physical ports, Ishwar's logical ports are associated with only a single

tunnel. Ishwar specifically states “one logical port is established for each connection by binding the logical port to the corresponding physical port and to the respective VLAN tunnel.” See paragraph 0041. Indeed, the one-to-one binding of a logical port to a tunnel appears to be an important feature of Ishwar’s system. Thus, if anything, Ishwar teaches away from the association with multiple connections that is claimed.

In light of the forgoing, the Applicant respectfully requests the Examiner reconsider the rejection, as Ishwar fails to teach the Applicant’s novel “*virtual port supporting a plurality of connections.*”

***Claim Rejections - 35 U.S.C. §102***

At paragraphs 2-3 of the Final Office Action, claims 1-4, 12, 13-16, 25, 26, 27 and 28 were rejected under 35 U.S.C. §102(e) over Ishwar et al., U.S. Patent Publication No. 2004/0017816 (hereinafter Ishwar).

The Applicant’s claim 1, representative in part of the other rejected claims, sets forth:

1. In a data network comprising a plurality of nodes, a method for transferring data packets between a source node and a destination node contained in the network, wherein the source node and destination node belong to the same virtual-local-area network (VLAN), the method comprising the steps of:

*establishing a virtual port associated with the destination node, the virtual port supporting a plurality of connections, a particular connection associated with the VLAN;*

acquiring a data packet from the source node, wherein the packet is associated with the VLAN and contains a destination address associated with the destination node; and

transferring the packet to the destination node over the particular connection via the virtual port.

Ishwar discloses “logical ports” to for passing VLAN packets. See abstract and paragraph 40. A logical port is bound to a particular physical port and to a particular “VLAN tunnel” connecting to a destination. See paragraph 0037 and 0039. That is, “one logical port is established for each connection by binding the logical port to the cor-

responding physical port and to the respective VLAN tunnel. For example, logical port LP<sub>3, 600</sub> is bound to physical port P<sub>3</sub> and stacked VLAN tunnel 600... logical port LP<sub>3, 610</sub> is bound to physical port P<sub>3</sub> and stacked VLAN tunnel 610, and logical port LP<sub>3, 620</sub> is bound to physical port P<sub>3</sub> and stacked VLAN tunnel 620.” See paragraph 0041.

The Applicant respectfully urges that Ishwar does not teach or suggest the Applicant’s claimed “*establishing a virtual port associated with the destination node, the virtual port supporting a plurality of connections, a particular connection associated with the VLAN.*”

As discussed above, Ishwar binds each logical port to only a single VLAN tunnel (i.e., so that logical ports are bound to VLAN tunnels in a one-to-one relationship). In contrast, the Applicant novelly claims a *virtual port supporting a plurality of connections*. While such a configuration introduces additional complexities, it advantageously overcomes shortcomings of systems such as the one discussed in Ishwar. The Applicant respectfully refers the Examiner to the Background section of the Application at page 3, lines 10-15, which touches upon this shortcoming of prior systems.

Further, as discussed above, Ishwar’s description of port P<sub>3</sub> (see Fig. 5 and paragraphs 40-41 among other places) bears little relevance to what is claimed, as port P<sub>3</sub> is a physical port, not a logical or virtual port. See Ishwar paragraph 41 (twice referring to port P<sub>3</sub> to as “physical port P<sub>3</sub>.”)

In summary, the Applicant respectfully urges that Ishwar is legally insufficient to anticipate the present claims under 35 U.S.C. §102 due to the absence of a teaching or suggestion of “*establishing a virtual port associated with the destination node, the virtual port supporting a plurality of connections, a particular connection associated with the VLAN.*”

*Claim Rejections - 35 U.S.C. §103*

At paragraphs 4-7, and 9 of the Final Office Action, claims 5, 21, and 23 was rejected under 35 U.S.C. §103(a) over Ishwar in view of Delaney et al., U.S. Patent No. 6,937,574 (hereinafter Delaney).

At paragraphs 8 and 10 of the Final Office Action, claims 6, 7, 9-11 and 21 were rejected under 35 U.S.C. §103(a) over Ishwar.

The Applicant respectfully urges that each of these claims is a dependent claim that depends from an independent claim that is believed to be allowable. Accordingly, these dependent claims are believed to be allowable due to their dependency, as well as for other independent reasons.

At paragraph 9 of the Final Office Action, claims 8, 18, 19, 20 and 24 were rejected under 35 U.S.C. §103(a) over Ishwar in view of Delaney.

The Applicant notes that claim 8 is a dependent claim that depends from independent claim 1, discussed above. Accordingly, as claim 1 is believed to be allowable, dependent claim 8 is also believed to be allowable due to its dependency, as well as for other independent reasons.

The Applicant's claim 18, representative in part of claims 19, 20 and 24, sets forth (emphasis added):

18. In a data network comprising a plurality of nodes, a method for transferring data packets between a source node and a destination node contained in the network, wherein the source node and destination node belong to the same virtual-local-area network (VLAN), the method comprising the steps of:

generating a data packet at the source node, wherein the data packet contains a destination address associated with the destination node;  
transferring the packet to a source intermediate node contained in the network;

at the source intermediate node, (i) acquiring the packet, (ii) *identifying a VLAN associated with the packet*, (iii) *identifying a virtual port through which the destination node may be reached, node, the virtual port supporting a plurality of connections*, (iv) *identifying a particular*

*connection that is associated with the virtual port and the packet's VLAN*, and (v) transferring the packet over the particular connection via the virtual port to a destination intermediate node contained in the network; and

at the destination intermediate node, (i) acquiring the packet, (ii) identifying a port through which the destination node may be reached and (iii) forwarding the acquired packet to the destination node.

Delaney discusses a technique for packet routing, where packets are directed to virtual ports associated with a virtual private network (VPN). *See* abstract. A multiplex switch receives a frame and forwards the frame on an appropriate pathway. *See* col. 9, lines 18-19 and 34-39.

The Applicant respectfully urges that the combination Ishwar and Delaney does not teach or suggest the Applicant's claimed "*identifying a virtual port through which the destination node may be reached, node, the virtual port supporting a plurality of connections*" and "*identifying a particular connection that is associated with the virtual port and the packet's VLAN*."

As discussed above, Ishwar binds a logical port to a particular VLAN tunnel (i.e., so that logical ports are bound to VLAN tunnels in a one-to-one relationship), while the Applicant novelly claims a *virtual port supporting a plurality of connections*. Delaney does little to remedy the shortcomings of Ishwar, simply discussing a technique for packet routing where packets are directed to virtual ports.

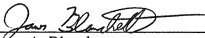
Accordingly, the Applicant respectfully urges that the combination of Ishwar and Delaney is legally insufficient to make obvious the present claims under 35 U.S.C. §103 due to the absence of the claimed "*identifying a virtual port through which the destination node may be reached, node, the virtual port supporting a plurality of connections*" and "*identifying a particular connection that is associated with the virtual port and the packet's VLAN*."

Should the Examiner believe telephonic contact would be helpful in the disposition of this Application, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.

In summary, all the independent claims are believed to be in condition for allowance and therefore all dependent claims that depend there from are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

  
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